

Red River Waterway Project
Shreveport, LA, to Daingerfield, TX, Reach
Reevaluation Study In-Progress Review

HISTORIC WATERCRAFT SURVEY

PREFACE

1. In October 1988 (Fiscal Year 1989), the U.S. Army Corps of Engineers, Vicksburg District, was directed by Congress to initiate a reevaluation of the feasibility of the Shreveport, LA, to Daingerfield, TX, reach of the Red River Waterway Project. Subsequent funding was provided by Congress in Fiscal Years 1990-1993.

2. In December 1992, an in-progress review of the feasibility of extending navigation on the Shreveport to Daingerfield reach was completed. The review was a preliminary assessment of project costs, benefits, and environmental impacts. The review revealed that construction of this reach of the project was not economically feasible. The project was also found to result in significant environmental impacts for which mitigation was not considered to be practicable. The reevaluation studies were terminated as a result of the in-progress review.

3. Various documents are available so that the public can better understand the results of the reevaluation study. The documents are:

a. In-Progress Review Documentation prepared in December 1992 for headquarters review.

b. Environmental Summary.

c. Regional Economic Development.

d. Public Involvement.

e. Recreation.

f. Mussel Survey.

Historic Watercraft Survey.

h. Geotechnical Investigations.

i. Geomorphic Investigations.

Copies of all these documents have been placed in the local depositories listed in the Public Involvement documentation. Copies can be obtained from the Vicksburg District for the cost of reproduction.

4. The Corps of Engineers is required to identify cultural resources within project areas so that their significance can be determined and they can be avoided when possible or unavoidable adverse project impacts can be adequately mitigated. Given the history of navigation on the project reach, a survey of the project area was included in the study efforts. The historic watercraft survey was conducted by a private consulting firm.

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CHAPTER 1

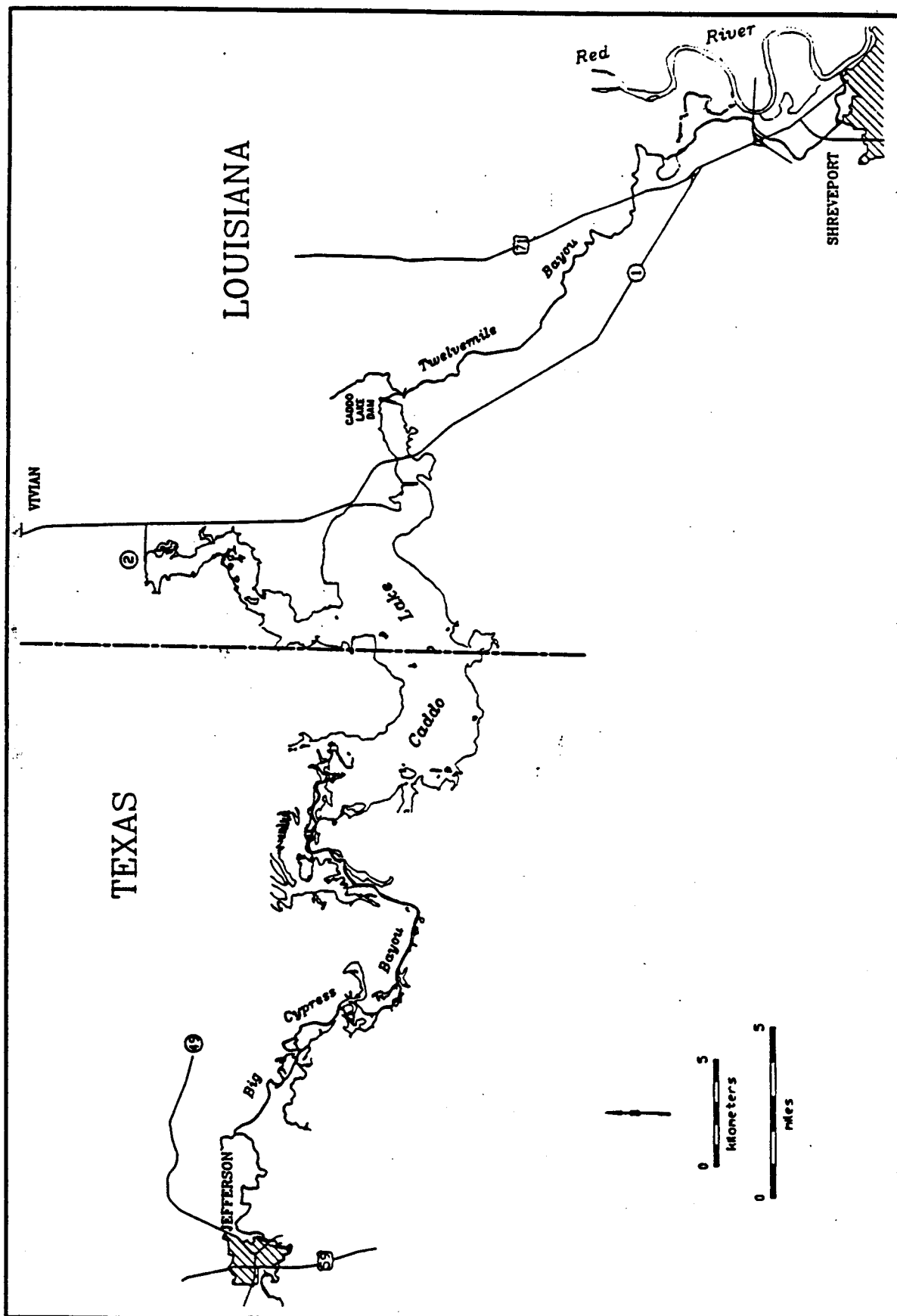
INTRODUCTION

This report presents the results of a cultural resources investigation undertaken by Coastal Environments, Inc., along the historic navigation route from Shreveport, Louisiana, to Jefferson, Texas (Figure 1). Aiding Coastal Environments in this project was Panamerican Consultants of Tuscaloosa, Alabama. The study involved historical research, remote-sensing survey and diving, all undertaken to try to locate, identify, and evaluate any boat wrecks which may exist within the old navigation channel. The route from Shreveport to Jefferson, through Twelvemile Bayou, Caddo Lake and Big Cypress Bayou, had been an import route for steamboat commerce from the 1840s into the very early years of the twentieth century. Several steamers were known to have been lost along this route over its period of use, and sunken steamboats were the objects of primary concern in this study.

This study was undertaken relative to the Shreveport, LA, to Daingerfield, TX, Navigation Project undertaken by the Vicksburg District, U.S. Army Corps of Engineers. This project was designed to open navigation to near Daingerfield, Texas, just above the town of Jefferson. The project, authorized by the River and Harbor Act of 1968, would consist of a 9- by 200 ft navigation channel extending from Shreveport, along Twelvemile Bayou, across Caddo Lake and up Big Cypress Bayou to a turning basin in Lake O' the Pines near Daingerfield, a distance of approximately 96 miles. The project would involve a large number of navigation improvement projects along the proposed route, which generally follows that used by nineteenth century steamboats. These improvements include three locks and one dam, in addition to the dams now on Caddo Lake and Lake O' the Pines, as well as a considerable amount of dredging and waterway improvements to obtain the desired navigation channel dimensions.

In 1989, the Vicksburg District, Corps of Engineers, initiated a reevaluation of the Shreveport to Daingerfield Reach of the Red River Waterway project. This reevaluation included the assessment of the project's impacts to cultural resources. The present study was undertaken because of the known use of the project area as a historic navigation route and because of the project's potential adverse impacts to any sunken vessels which may exist along the route. The study was conducted in partial fulfillment of the Vicksburg District's obligations under Federal regulations, including: the National Historic Preservation Act of 1966 (Public Law 89-665), as amended; the National Environmental Policy Act of 1969 (Public Law 91-190); the Archeological and Historic Preservation Act of 1974 (Public Law 93-291); the Archeological Resources Protection Act of 1979 (Public Law 96-96); and the Abandoned Shipwreck Act of 1987.

The reevaluation study of the navigation project determined that the construction of the navigation project was neither economically nor environmentally feasible, and in December 1992, the Corps of Engineers recommended that the ongoing studies be brought to an orderly conclusion. This included the present project, which had just been initiated. As a result, the scope of this study was slightly altered in January 1993. Specifically, the amount of time to be spent on diving and physical examination of targets was significantly



reduced. No changes, however, were made in the level of effort applied to the remote-sensing survey, which had been completed by this time.

The Study Area

The Scope of Work for this project directed that the field investigations be conducted in two phases. The first phase would consist of a "reconnaissance level" remote-sensing survey using a magnetometer, side-scan sonar and fathometer of the "historic navigation channel." The project area, therefore, consists of the identified historic navigation channel. A thorough discussion of the historic navigation channel is provided in following sections, but for the present it can be noted that this channel can be fairly easily identified. It essentially consists of the course of Big Cypress Bayou from Jefferson to Caddo Lake, then it follows a course passing fairly close to the south shore of Caddo Lake, past the community of Mooringsport to the present-day Caddo Lake Dam. There are several cut offs along Big Cypress Bayou dug during the nineteenth century as navigation improvements. The remote-sensing survey covered the courses of the cut offs as well as the former stream channels where there were accessible by boat. Below the Caddo Lake Dam, the historic channel passed through Soda T. Lake and along Twelvemile Bayou to the Red River at Shreveport (Figure 1). The remote-sensing survey followed the present course of Twelvemile Bayou below the dam, but the bayou has been channelized and now does not correspond to the historic navigation channel along its entire length. The original intent of the study was to examine with appropriate remote-sensing instruments some of those portions of the nineteenth century navigation route which fall outside of the present confines of Twelvemile Bayou. However, the January 1993 request by the Corps of Engineers to lessen the work effort of the study eliminated this additional coverage. It is estimated that the survey along Twelvemile Bayou incorporated approximately 50 percent of the nineteenth century navigation route in this area.

The remote-sensing survey located only three targets of interest, only one of which proved to be a historic water raft. This vessel is a wooden barge of undetermined age sunk in Big Cypress Bayou.

The Scope of Work also requested that remote-sensing survey be conducted along the south shore of Caddo Lake just east of the Texas/Louisiana state line in order to try to locate the remains of the steamboat *Mittie Stephens*. This steamboat had burned and sunk in this area in 1869 with large loss of life and her name is firmly established in local history and legend. Several unsuccessful attempts had been made to find the wreck of the *Mittie Stephens* (Garrison 1983; Lang 1986) and our brief effort was meant to augment these earlier quests. No evidence of the *Mittie Stephens* were found during the survey but just at the time of our work, material probably related to the salvage of the vessel was discovered on the banks of Caddo Lake through the efforts of Dennis Nave and Jacques Bagur.

Report Organization

The following chapter in this study presents a discussion of the natural and cultural settings of the project area. The discussion on the cultural setting deals primarily with the history of riverine transportation and commerce between Shreveport and Jefferson and the characteristics of the steamboats which plyed this route. Following sections of the report deal with the remote sensing survey and the diving operations conducted at three targets discovered during the survey. The final chapter provides conclusions and recommendations.

CHAPTER 2

NATURAL AND CULTURAL SETTING

Natural Setting

The project area includes the lower end of the Big Cypress Bayou drainage, which contains Big Cypress Bayou itself and Caddo Lake, plus Twelvemile (or Twelve Mile) Bayou. Big Cypress Bayou and Caddo Lake lie in Tertiary and Pleistocene uplands, while Twelvemile Bayou flows along the western edge of the alluvial valley of the Red River (figure 2).¹ Big Cypress Bayou rises in the Tertiary uplands north of Winnsboro, Texas, and flows for about 120 km east southeast before reaching the Red River valley. In its upper reaches, the stream is known as Big Cypress Creek, but below present-day Lake O' the Pines it is known as Big Cypress Bayou. The major tributaries of the bayou in the project area are Little Cypress Bayou and Harrison Bayou.

The present landscape of the Big Cypress Bayou basin is primarily the result of erosional and depositional processes acting upon sedimentary deposits of Tertiary age (Thurmond 1990). Dissection and erosion of the uplands has been primarily responsible for the present topography of the Cypress basin region as streams developed into their present dendritic drainage pattern. Erosion of the uplands has produced a gently rolling landscape, with major elevation differences occurring where the alluvial valley of Big Cypress Bayou impinges upland features. The greatest elevations along Big Cypress Bayou occur near Caddo Lake State Park where uplands rise 125 feet or so above the floodplain, and along Twelvemile Bayou at Grindstone Bluff where the uplands rise about 70 feet above the Red river floodplain.

The alluvial valley of Big Cypress Bayou contains Holocene-age deposits associated with the modern channel, as well as Pleistocene-age features which exist as flat, generally level terraces lying at elevations slightly above the modern floodplain (Thurmond 1990:8). In the upper portions of the project area, these flanking terrace deposits are limited in area and distribution, but they become quite extensive in the lower reaches of Big Cypress Bayou. At the upper end of Caddo Lake, Big Cypress Bayou has developed a fairly extensive delta. The rate of development and progradation of this feature has probably decreased since the construction of dams and reservoirs on the stream above Jefferson.

The Development of Caddo Lake and the Sodo Lake System

Caddo Lake is a natural feature, but its continued existence and current configuration has been insured by the construction of Caddo Lake Dam, originally built in 1914. Although natural, the available evidence suggests that Caddo Lake formed in very recent times. Until the

¹ In the literature Big Cypress Bayou is often referred to simply as Cypress Bayou, particularly when referring to the lower reaches of the stream. As presented in this document both usages refer to the same stream. Twelvemile Bayou is commonly referenced as Twelve Mile Bayou. The former spelling is used herein.

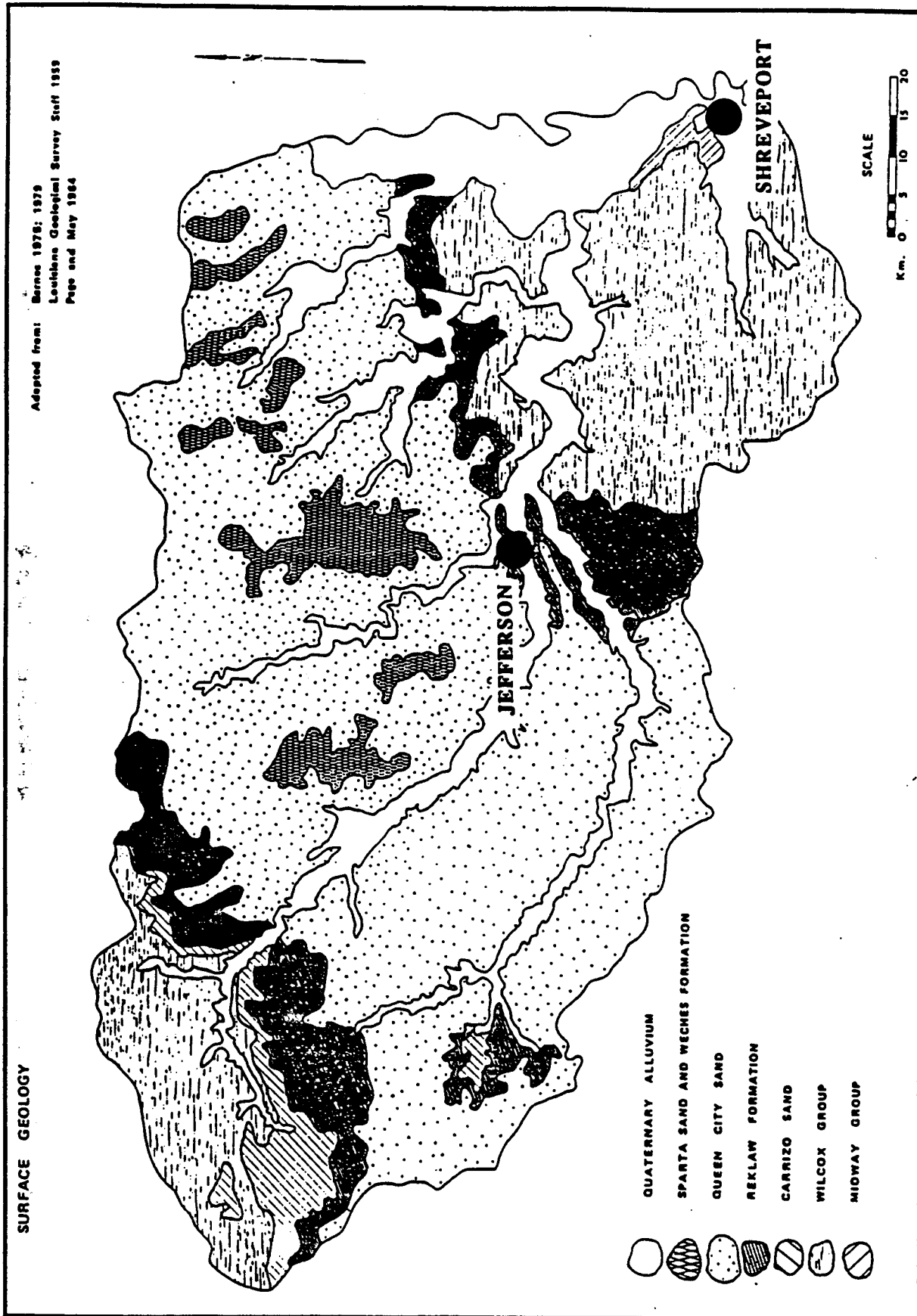


Figure 2. Surface geology of the project area (source: Thurmond 1990:Figure 2).

late 1700s, the area presently occupied by Caddo Lake was a forested valley through which Big Cypress Bayou flowed. Many of the stumps from the forest are still within the lake, and the channel of the bayou is still observable beneath lake waters. At the foot of what is presently Caddo Lake, Big Cypress Bayou entered into the valley of the Red River, where it was soon joined by Black Bayou. Further down, Big Cypress Bayou passed through a cypress swamp in a depressed area of the Red River floodplain where the banks were indistinct and water flowed out over the land. In the same general area, Big Cypress Bayou was joined by Red Bayou, and the combined waters of the three streams entered the Red River a few miles above Cross Bayou near present-day Shreveport, which had developed its own valley.

Towards the end of the eighteenth century, five lakes formed in the area through which Cypress Bayou and Cross Bayou flowed. These were Caddo Lake, Clear Lake, Shifttail Lake, Soda Lake, and Cross Lake. These lakes were connected and were referred to collectively by the Indians as Sodo (Figure 3). Clear, Shifttail, and Soda lakes have since disappeared. Cross Lake disappeared and was recreated by the City of Shreveport in the 1920s as a water supply reservoir.

The exact way in which these lakes formed is a matter of speculation. It is generally agreed that they owed their existence to the Great Raft on the Red River, which was a discontinuous mass of timber about 80 miles long (Figure 4). The raft consisted of extensive entanglements of logs and driftwood, some of which were cemented by mud and growing masses of willows, cottonwoods, and other vegetation (McCall 1984:218). The raft moved continually *upstream*, receiving new timber at its head with each spring flood and losing rotted timber at its fogs. The raft was responsible for the formation of a number of lakes all along the Red River both above and below the Sodo Lake complex. Most of these lakes have disappeared.

The Sodo Lake complex cannot have come into existence as a result of the physical blockage of Twelvemile Bayou by the raft. The Thomas Freeman and Peter Custis expedition of 1806 provides very firm evidence that the complex was in existence when the head of the raft was just below Twelvemile Bayou. Freeman and Custis had been sent by President Thomas Jefferson to explore and map the Red River (Flores 1984). The raft acted as a dam, raising water levels far upstream. Therefore, a likely explanation for the formation of the complex is that water pressure caused a break in the natural levee of the Red River at the first large bend above the bluffs that eventually came to be occupied by Shreveport, forming the crevasse known as Cottonwood Bayou (Figure 5). With the break in the levee, water flowed down the sloping natural levees of the Red, filling the lower floodplain and backswamp areas and the valleys of Cypress and Cross bayous. This general scenario is supported in the 1893 report on Cypress Bayou and the lakes by Capt. J.H. Willard of the Corps of Engineers:

The explanation seems to be simple. The lands on the right [west] bank were undulating, and Red River, like other alluvial streams, flowing down the easiest line, built up the banks until it was dammed by raft, when the water rose above them and cut through, filling the lowest pans as far as the Albany Hills . . . [Willard 1893].

Whatever their exact mode of formation, the lakes owed their continued existence to the Red River distributary system, which is shown on T.S. Hardee's 1871 map of Louisiana (Figure 6). Since the raft acted as a dam, the waters of the Red were forced off channel through distributaries, which formed progressively as the raft moved upstream. The waters of the Red passed through this distributary system into the Sodo Lake area, and then flowed south along the fringing uplands forming the western valley wall, eventually rejoining the Red below the foot of the raft.

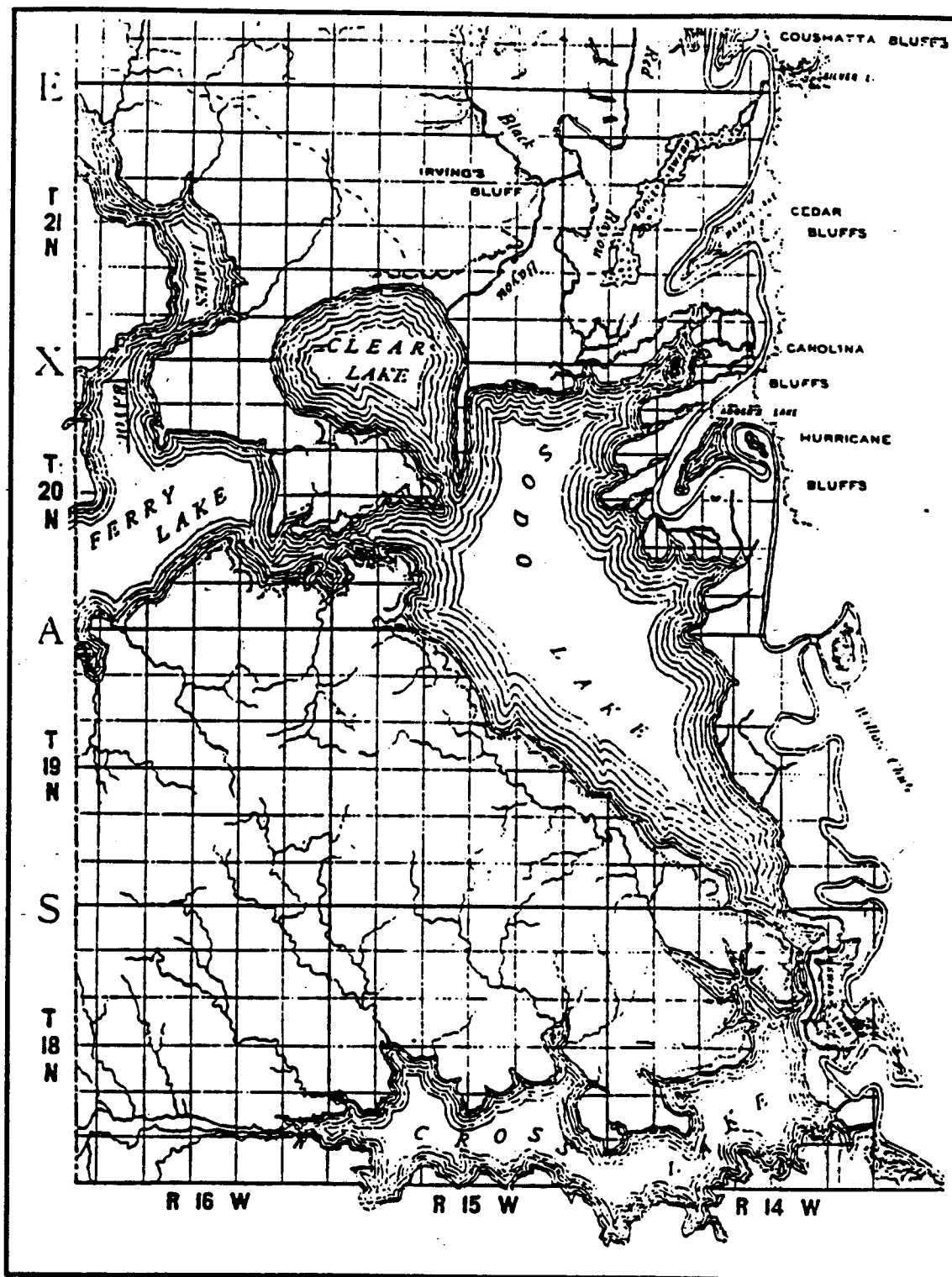


Figure 3. The Louisiana portion of the Sodo Lake complex, as reconstructed by Arthur Vetch from 1839 Louisiana State Survey maps. By 1839, the lakes had been differentiated, with Caddo Lake bearing the name Ferry Lake, and Sodo Lake being called by the name of the complex. Shifttail Lake was the northeast extension of Sodo Lake on this map.

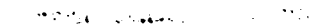


Figure 4. One of several timber Jams composing the Great Raft on the Red River. This photograph was taken in the 1870s by R.B. Tilfor as the raft was being removed.

As new distributaries formed upstream of Cottonwood Bayou, and particularly after Ret and Black bayous were joined by an artificial channel in 1830, all the waters of the Red were concentrated at the foot of Caddo Lake. Red River water actually entered the lake, forming a channel that crossed the Texas line in high-water periods. Red River sediments were carried into the lake, which formed a bar that much later proved instrumental in the continuance of the lake after the raft was removed. The waters of the Red exerted an influence as far west as the confluence of Black and Big Cypress bayous, essentially converting Big Cypress into a flat-water extension of *Caddo Lake*, as is shown on Hardee's map Tee 1871).

In the Soda Lake area, the cypress and oak trees in the preexisting swamp were killed by water and sediments. Essentially, the Soda Lake area served as a catchment basin for Red River sediments. The old channel of Cypress Bayou in this area was filled and obliterated, and the new channel, such as it was, shifted toward the bluffs to the southwest. All that remained of the original channel of Cypress Bayou from the head of Caddo Lake downstream was a 12 mile segment between the foot of Soda Lake and the Red River.

Although the Soda Lake complex was not to be penetrated by steamboats until many decades after its formation, the fact of its formation and the peculiar nature of its formation and maintenance were to have profound consequences for navigation. The most important of these consequences was the fact of navigability itself. In an 1874 Corps report, Capt. C.W. Howell states that Big Cypress Bayou was not navigable before the lakes came into existence (Howell 1874). The problem was not in the upper reaches of the bayou or in the valley that eventually became Caddo Lake, but rather in the Soda Lake area where, before the lake came into existence, the waters of Big Cypress Bayou were not restricted to a well-defined channel, but

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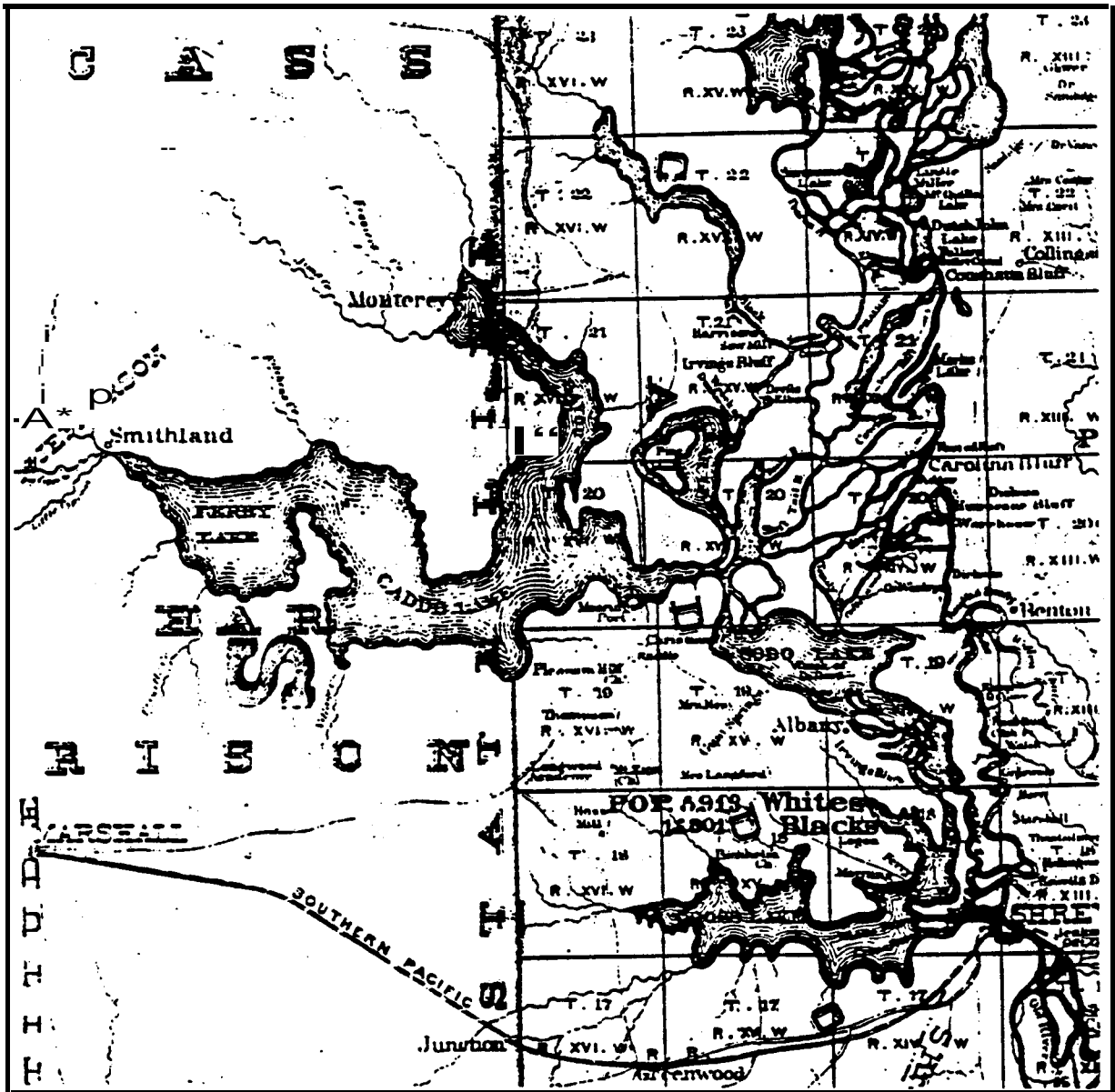


Figure 6. A portion of T.S. Hardee's 1871 map of Louisiana showing the Red River distributaries feeding into the Sodo Lake area.

rather spread out through a cypress swamp. Howell was of the opinion that steamboats could never have made passage through this area.

Of lesser magnitude was the effect on access, vegetation, and the water regime. With respect to access, it is obvious that there could have been no landings on the bluffs surrounding the valley of Cypress Bayou had not Caddo Lake come into existence. And it was only because James Bayou was flooded that the Monterey area became accessible. With respect to vegetation, the trees in the valley of Cypress Bayou were killed when the lake came into existence and gradually decayed, facilitating the later removal of obstructions by steamboatmen. With respect to the water regime, water levels were raised on Cypress Bayou

above Caddo Lake by the upstream pressure of Red River water. Caddo Lake provided an elevated passage over the now-submerged channel of Cypress Bayou. Therefore, the flat-water conditions between the foot of Caddo Lake and the confluence of Big and Black Cypress bayous made the passage of steamboats easier and safer.

On the negative side, the fact that the lakes were fed by Red River water meant that the seasonal navigability of the Cypress Bayou route would always be heavily dependent on water stages in the river. The Cypress Bayou route was not navigable when there was insufficient water for navigation on the Red. Although the route was seldom open all year, this did not pose a practical problem for commerce, since the commercial orientation of the entire region was south toward New Orleans, and it would have mattered little if Cypress Bayou was navigable when the Red was not.

The Soda Lake area, though an improvement over the preexisting cypress swamp, was always a hazard to navigation because of swamp remnants and the accumulation of sediments. In addition, Soda Lake and Caddo Lake were broad and shallow, giving rise to navigation problems in windy weather. Most importantly, the raft as cause of the lakes (and therefore as cause of the navigability of the Cypress Bayou route) nevertheless prohibited navigation along the route as long as the Red River was impassable below Shreveport and as long as the raft blocked Twelvemile Bayou's entrance to the Red. This did not pose a practical problem in the first few decades of the 1800s, since the area northwest of what-later-came to be called Shreveport was occupied solely by Indians, and there was no need for commercial navigation.

Historical Setting

This chapter presents an overview of the history of the Cypress Bayou/Caddo Lake region, with an emphasis on the settlement and economic history of the area and the history of navigation and watercraft use. The prehistoric period is of little relevance to this study and is not considered. An overview of the prehistory of the region and the history of archaeological research can be found in Thurmond (1990).

Early European Exploration

The first Europeans to visit the region of northwestern Louisiana were the members of Hernando De Soto's expedition who visited the area in the summer of 1542. De Soto's entrada had crossed the Mississippi River in the Spring of 1542 and traveled westward before returning to the river, where De Soto died on May 21, 1542 (Elvas in Boume 1973:161). The remnants of De Soto's army, lead by Luys de Moscosco de Alvarado, decided upon an overland route to the southwest in an effort to reach New Spain (Mexico). The specific route which they followed in this effort is in dispute, but the De Soto Expedition Commission, writing in the late 1930s, suggested it included the areas of northwest Louisiana and northeast Texas (Swanton 1985:279-280). The Commission noted:

The route pursued by Moscosco after De Soto's death is thought to have been northwest by way of Sicily Island to Columbia where he crossed the Ouachita and then west to Drake's (Chaguante), northwest to Bistineau lake (Aguacay), and west to a place on Red River above Shreveport, perhaps Cedar Bluff, Pau Ferry, or Miller's Bluff, where he forded that stream. . . . On the other side of Red River he turned sharply to the southwest, visited three Caddo tribes, the Nasoni, Nacanc or Nacanish, and Nadaco or Anadarko, between Red and Sabine rivers. . . . [Swanton 1985:280].

Although the exact route of De Soto's men is unknown, it is apparent that they encountered the ancestors of the Caddo tribes subsequently found in this area by French explorers. The impact the Spanish explorers may have had on the native peoples of the area are

not recorded, however, it is probable that they introduced European diseases against which the Indians had little resistance, possibly resulting in widespread sickness and death.

In 1682, the French explorer Rene-Robert Cavelier Sieur de La Salle traveled out of Canada and down the Mississippi River, reaching its mouth in April of that year. La Salle claimed for France all of the lands drained by this river and named the territory Louisiana. Almost two years later La Salle led a second expedition to settle Louisiana. Either through accident or, perhaps, on purpose, La Salle failed to find the mouth of the Mississippi, instead establishing his settlement on Garcitas Creek on Matagorda Bay on the Texas coast (Weddle et al. 1987:5). The French settlers soon fell prey to disease, starvation, and Indian depredations. In an attempt to save the few remaining colonists, La Salle took a small party of men overland to the northeast trying to reach the Mississippi River and, eventually, Canada. La Salle was murdered soon after the expedition started, but survivors of the party passed through northeast Texas and northwest Louisiana on their journey to the Mississippi.

Henri de Tonti, La Salle's captain on his first expedition down the Mississippi, ascended the Red River in 1690 searching for La Salle and the lost colony. He encountered the Caddo Indians of the region, but no permanent settlement resulted from his activities. It was not until the permanent establishment of the Louisiana Colony by Pierre le Moyne d'Iberville in 1699 that serious French exploration and eventual settlement of the upper Red River region began (Weddle 1991). Iberville's younger brother, Jean-Baptiste Lemoine de Bienville, crossed overland from Teansa Indian villages on the Mississippi River and reached the Red River near presentday Natchitoches in the Spring of 1700. Bienville briefly explored the area north of Natchitoches before returning to the mouth of the Mississippi (McWilliams 1981). In subsequent years several French expeditions were made to visit the Caddo on the Red River. The French were interested in establishing trade with these Indian groups and, also, they wanted to thwart Spanish excursions from the west. The first permanent French settlement in the region was Natchitoches, established by Louis Juchereau de St. Denis in 1714. Two years later, the Spanish established just 12 miles west of Natchitoches the mission San Miguel and the Presidio de Nuestra Senora del Pilar de los Adaes among the Adaes Indians, a Caddoan group (Gregory and McCorkle 1981:4-5).

In 1719, the French commandant at Natchitoches, M. Blondel, attacked and overran the Spanish at Los Adaes. Subsequently, in 1721; the Spanish Marquis San Miguel de Aguayo led an expeditionary force of 500 men to reoccupy east Texas. Aguayo constructed a new fort and mission a short distance east of the original site and left a garrison of about 100 men, many with their families, to man the post. The Spanish post at Los Adaes was far distant from any other Spanish settlement and, soon, a considerable amount of trade and interaction developed between the Spaniards and the French at Natchitoches. Gregory and McCorkle (1981:33-34) note "It is ironic that Los Adaes which was established to protect east Texas from French encroachment, would find itself dependent upon the French settlement which it confronted." During the French colonial period, Natchitoches became the major settlement on Red River. Its economy was based on trading with the Spanish to the west and with the local Indians. These tribes included the Caddo, who resided along the Red River above Natchitoches and in northeast Texas.

The Caddo Indians

The Kadohadacho, or Great Chiefs, of the Caddo Nation claimed the land from Cypress Bayou and the lakes to the north, where the Red River turned to the west. They were living in a village slightly south of the river that had been occupied for centuries, when in 1790, they were attacked by disease and the Osages and took refuge in the Petit Caddo village. Flores (1984) suggests that the Petit Caddo village was the southernmost of the upper Red River villages in southwest Arkansas.

They were again attacked by disease and the Osages and moved much further south above present-day Shreveport. The year of this move is not recorded, but it was probably in 1795, since the Freeman and Custis expedition of 1806 reports that the Caddos had been living in the general area for 11 years. They located first at Cedar Bluffs on the Red River at a site that was later occupied by the Coushattas. After two years, a smallpox epidemic forced them to abandon that village and to move a short distance upstream across the river on the Red River floodplain. They were there until 1800 when flooding along the Red forced them to seek higher ground on James Bayou above Caddo Lake.

Historic evidence for the location of the Caddo Indian village on James Bayou is firm. Darby's 1816 map of Louisiana shows the village immediately south of James Bayou (Figure 7). Additionally, an Indian village is shown in the same area on an 1839 Louisiana State Survey map. Thomas Freeman and Peter Custis, who explored the Red River in 1806 (Flores 1984), and John Sibley, Indian agent at Natchitoches (Sibley 1806a), describe the location in terms of a stream that can be associated with James Bayou. There was a trail leading from the Caddo village to the Coushatta village on the Red River to the west and down to Caddo Lake to the south. This trail is shown on the 1841 boundary survey map as leading into the James Bayou area. Sibley says that before moving to their permanent home, the Caddos lived nearly directly opposite on the Red River floodplain. The abandoned floodplain village was visited by the trader Anthony Glass in 1808 (Flores 1985) and is nearly opposite the upper portion of James Bayou. Lastly, Sibley says that the Caddos grew their crops on a prairie of white clay soil. A large area just north of James Bayou is the only area in the vicinity of Caddo Lake that fits this description.

The Caddos were hospitable to friendly tribes and allowed the Coushattas, Alabamas, and Quapaws to move onto their land. The Coushattas located at Cedar Bluffs in 1803 or 1804, and the Alabamas located southwest of the Caddos on the peninsula that later came to be known as Potter's Point in 1804. The Alabama Indian village (marked Coshatta) is shown on an 1839 Louisiana State Survey map (Figure 8). In the 1820s, the Quapaws moved to a site near the Caddo Prairie Indian Agency, which was located between Red and Black bayous. Flooding induced by the Red River destroyed their agricultural operations, and most of the tribe moved back to their homeland on the Arkansas River.

Besides these major tribes, there were also tribal remnants. The Indian agents in their letters write of the lands above Cypnss Bayou and the lakes as a vast repository for Indians moving from their homelands under the pressure of white settlement. The Indian agency with jurisdiction over the Caddos was located at Natchitoches prior to 1821, on Sulphur Fork from 1821-25, on Caddo Prairie from 1825-31, and at Peach Orchard Bluff (below Shreveport) from 1831 until the agency was discontinued in 1834.

Early European Settlement in the Project Area

During the periods of French (1699-1763) and Spanish (1763-1804) rule of Louisiana, European settlement of the project area seems to have been negligible, although the area was frequently visited by traders, trappers and travelers. Not long after the acquisition of Louisiana by the United States in 1804, American settlers began to move into the territory, in part attracted by the region's rich farmlands. Through the first two decades of the nineteenth century, Natchitoches and the area to its north along Red River, including the project area, maintained a frontier existence. From the onset of American ownership of Louisiana, strained relations existed with the Spanish to the west. Spain feared Anglo-American expansion into their east Texas lands, and a long running dispute over the position of the boundary between Louisiana and Texas arose. Claims concerning disputed lands in the area between the Sabine and the Red rivers arose, and both sides responded with displays of military strength. It was

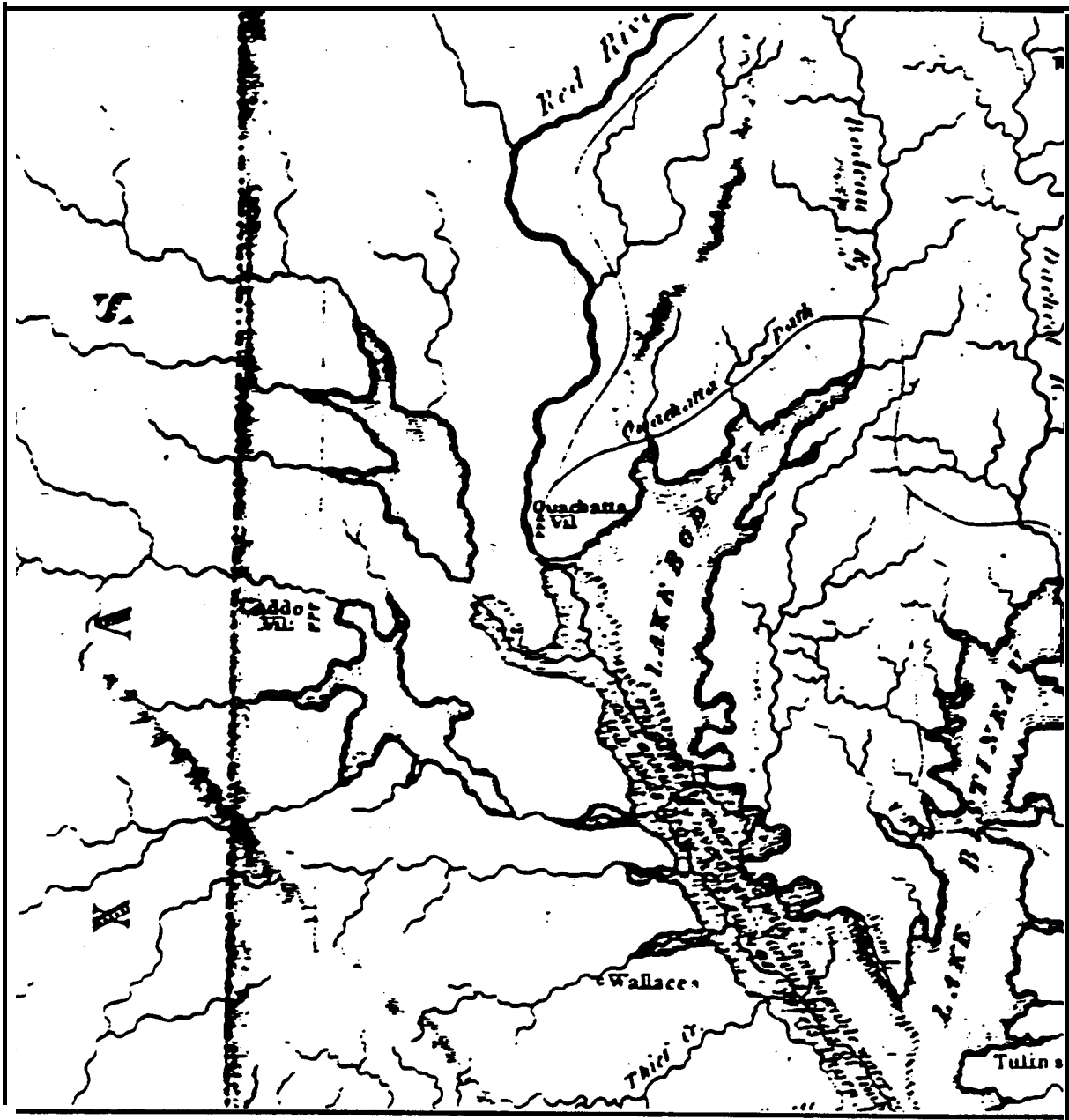


Figure 7. The location of the Caddo Indian village on James Bayou as shown on William Darby's 1816 map of Louisiana.

not until 1819 that the western boundary of Louisiana was finally established, relieving some of the tensions between the two powers (Haggard 1945).

Beginning in the 1820s, American settlers began to move into the upper Red River region of Louisiana, primarily to grow cotton. Cotton had been raised by Emanuel Prudhomme on his Cane River plantation near Natchitoches as early as 1718, but it was not cultivated in quantity along Red River until the nineteenth century (Commonwealth 1981:125). The beginning of steamboat navigation on Red River at about this time improved the economic outlook for cotton agriculture and insured its expansion and spread. Crops could be carried

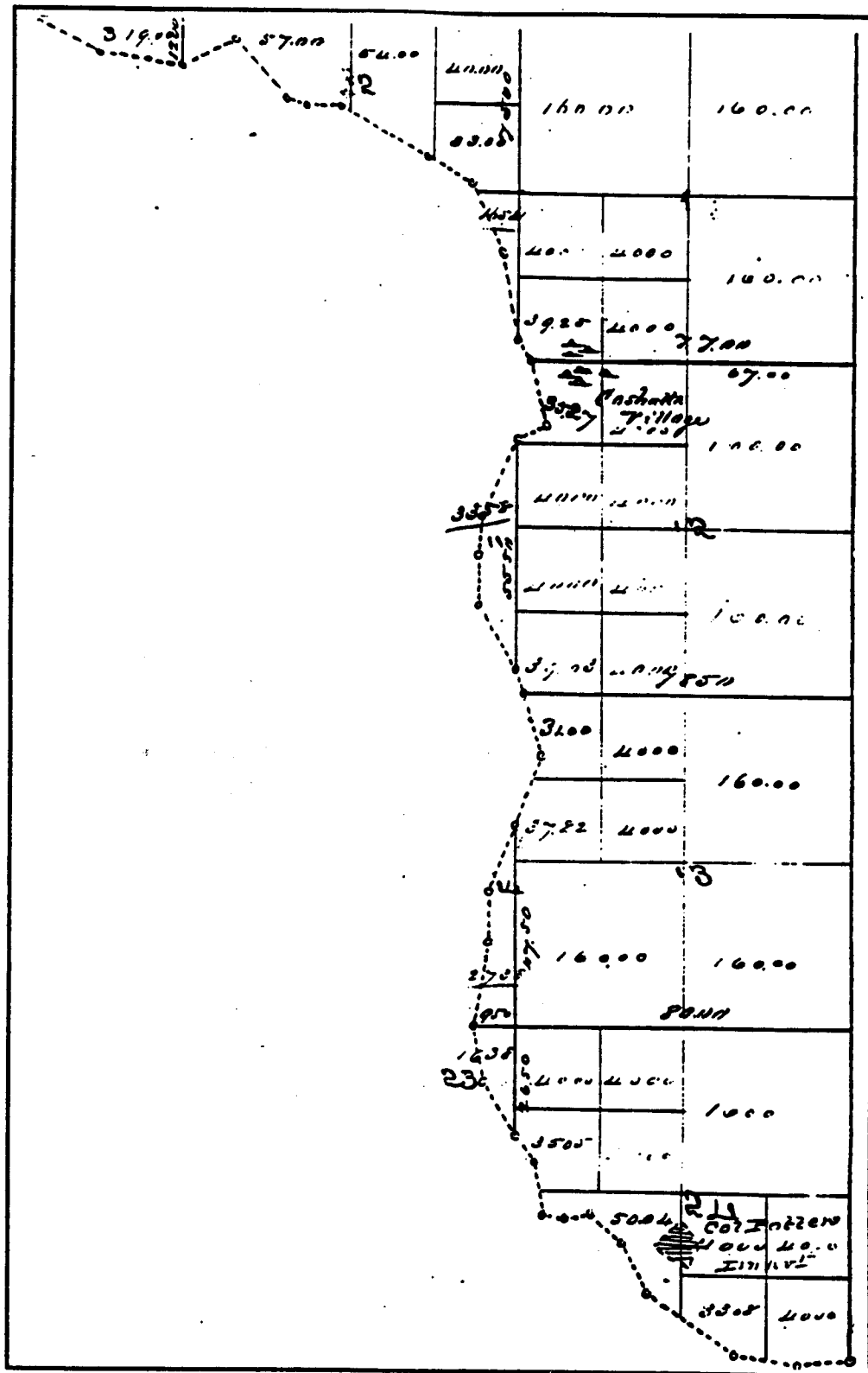


Figure 8. The location of the Alabama Indian village (marked Coshatta) as shown on an 1839 Louisiana State Survey map.

downriver to New Orleans inexpensively and with some assurance of a successful journey, plus manufactured articles and other goods necessary for life on the river settlements, and plantations could be carried upriver in a relatively short time. Even during this period, however, the project area remained relatively isolated from disturbance by American immigrants, because these lands belonged to the Caddo. Until the latest years, the Indian agents were diligent in blocking white settlement on Caddo lands and actually expelled a handful of intruders in 1825. However, the impetus to white encroachment on Caddo lands was not particularly strong. The Red River raft isolated settlers adjacent to it and prohibited development above on the Red River floodplain because of the certainty of eventual raft-induced flooding.

As a consequence, in the early 1800s there were no white settlers between the Arkansas line and the bluffs on which Shreveport was eventually founded. Below these bluffs, the Wallaces were located in the Wallace Lake area, and the Norrises and a few other families were located on Rush Island, a fertile piece of land between the Red River and Bayou Pierre, which was a distributary that left the river just below the bluffs. To the east, Francois Grappe owned a cattle ranch on Lake Bistineau: but Grappe was an anomalous figure, since he was half Indian and actually lived at Campi.

The Rush Island settlers were the uppermost extension of the Bayou Pierre settlements, but they did not live on Caddo lands. The only whites who lived on Caddo lands were persons connected with the Indian agency: the agents: Larkin Edwards, who acted as interpreter for the Caddos; Jacob Irwin, blacksmith and gunsmith for the Caddos from 1813-35, and two families, the first of which operated a ferry across the Red River at the Sulphur Fork Agency, and the second of which operated a ferry across Caddo Lake at Stormy Point, as is shown on an 1839 Louisiana State Survey map (Figure 9).

The ferry across Caddo Lake was in existence by at least 1824. It was operated by James Shenick, who was a son-in-law of Larkin Edwards, having married Edward's daughter Emily Jane. Although the ferry was operating in Caddo territory, it was a private enterprise, since it is not listed as government property. However, it was subsidized by the Indian agency at \$100 a year to transport the Caddos and other Indians across the lake in their travels to Natchitoches and, later, Shreveport.

The ferry was used by the 1841 United States-Republic of Texas boundary survey crew to transport men and materials across the lake. The survey journal refers to it as a scow, which meant that the bow was square at the water line. The 1839 Louisiana State Survey map shows a vessel with a pointed bow and a square stem (Figure 9). The bow was pointed on top and square below to provide easy access to shore landings. It was operated by oars and guided by a sweep, which is shown extending from the stem.

Until well into the twentieth century, Caddo Lake was known as Ferry Lake, obviously in recognition of the importance of James Shenick's ferry. In addition, it appears that James Bayou was named after the ferry boat operator. On some early maps such as the 1841 boundary survey map, James Bayou is designated Coushatta Jim's Bayou as a reflection of his close association with the Indians. "Jeems Bayou," which is shown on many Caddo Lake maps, is a later corruption.

By July 1832, the Bennet and Cane store was in operation on the bluffs on which Shreveport was founded. In July 1835, the Caddos sold their lands to the United States. The reasons are unclear. It is obvious that the last Indian agent, Jehiel Brooks, was unwilling to protect Indian lands from white encroachment and in fact had a financial interest in the land transaction. It may also be the case (although there is no evidence for this) that the Caddos recognized the implications of raft removal by Henry Shreve, which had proceeded as far as

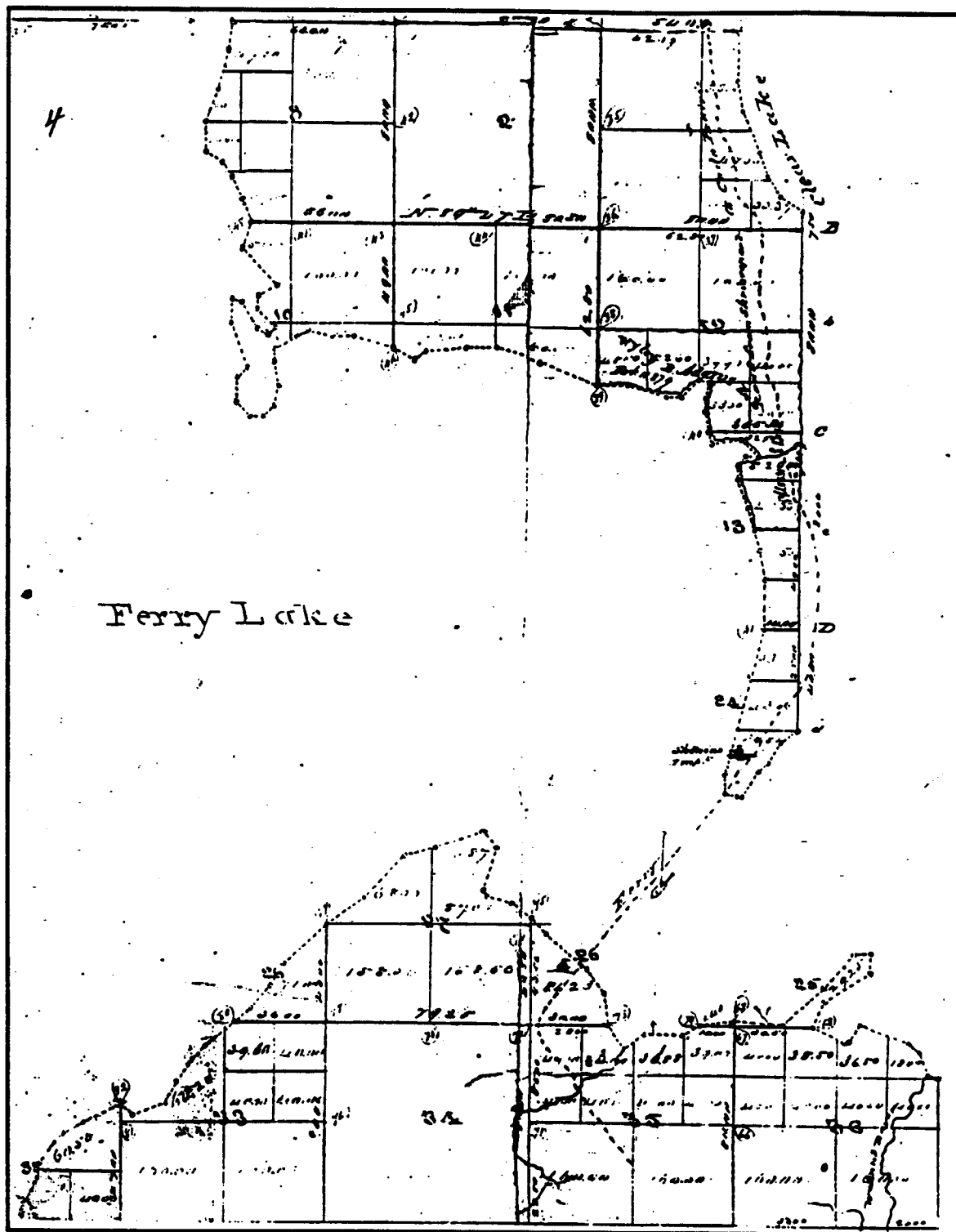


Figure 9. James Shenick's ferry across Ferry Lake, which was the traditional name for Caddo Lake.

Twelvemile Bayou in April. The raft had protected the Caddos by isolating their lands, and its removal opened the floodgates of settlement.

Larkin Edwards received a tract of land in the session in recognition by the Caddos of his friendship. This tract was sold to Angus McNeill in February 1836 and became the nucleus of Shreveport when the Shreve Town Company was formed in May. The last payment of goods was made to the Caddos at the site of Shenick's ferry.

Navigation Conditions and Improvements

Navigation on the waterways of Twelvemile Bayou, Caddo Lake and Big Cypress Bayou is intimately tied to navigation on Red River. Navigation on the Red, particularly after the advent of steamboats in the 1820s, was often unreliable and frequently dangerous. Snags, sandbars and dangerous cutrents, especially during periods of low water, posed a serious threat to commercial shipping. There were several major obstacles to navigation on the Red. One of the most prominent were the siltstone shoals at Alexandria forming what were known as the "Rapids" or "Falls." The falls obstructed year round navigation of the Red above Alexandria, and during periods of low water, goods were portaged around the falls to vessels waiting either above or below them. As an example of the hazards of the rapids, John Sibley noted in 1821:

Our River Rose last month so that the Steam Boat Beaver made a Trip & went down again, but in going over the falls struck & stuck just where she remained all night in great Jepourdy [sic]. by throwing all her Load of cotton into the River she got off that day. the River here is shallow. she cannot come up again [Sibley 1821b].

Appropriations to clear a channel through the rapids were made as early as 1840; however, the attempts made before the Civil War were unsuccessful. United States contracts implemented between the years 1883 and 1897 eventually removed the rapids and opened navigation above Alexandria (Hyams 1939:39-46).

In 1825, Capt. George Birch was instructed to conduct a survey of the raft region to determine the best way of resolving navigation problems on the Red River. He moved up the river in a keelboat to the foot of the raft and then transferred to two skiffs. He then ascended the river, with immense difficulty, through the raft up to Cross Bayou. Convinced that the raft could never be conquered, he sought a route to the west that could be tied back into Bayou Pierre.

As is shown on Birch's survey map (Figure 10), he left the Red through Cross Bayou traveled through the connection between Cross Lake and Soda Lake that was later to be called "The Pass," entered Soda Lake through Twelvemile Bayou, then spent a few days looking for Coushatta Bayou, which would have taken him back to the Red just below the Coushatta Indian village at Cedar Bluffs. Birch's report provides a vivid description of the rapid sedimentation in Soda Lake that was later to prove a major nuisance for steamboats:

In our endeavors to find this Bayou...we spent three or four days along the shore where its entrance was said to be located, but owing to the shoalness of the lake our skiffs were rendered useless, and the mud so soft, that, in attempting to coast the lake around on foot. we frequently in the distance of half a mile, sunk up to our waists in the mud.

Birch was seeking a passage upriver, not to the west. There was no reason to travel west through the lakes and Cypress Bayou as there were no settlements in that direction during the first decades of the 1800s. As a consequence, the navigational history of the general area is restricted to events along the Red River and the eastern and western bypasses around the raft.

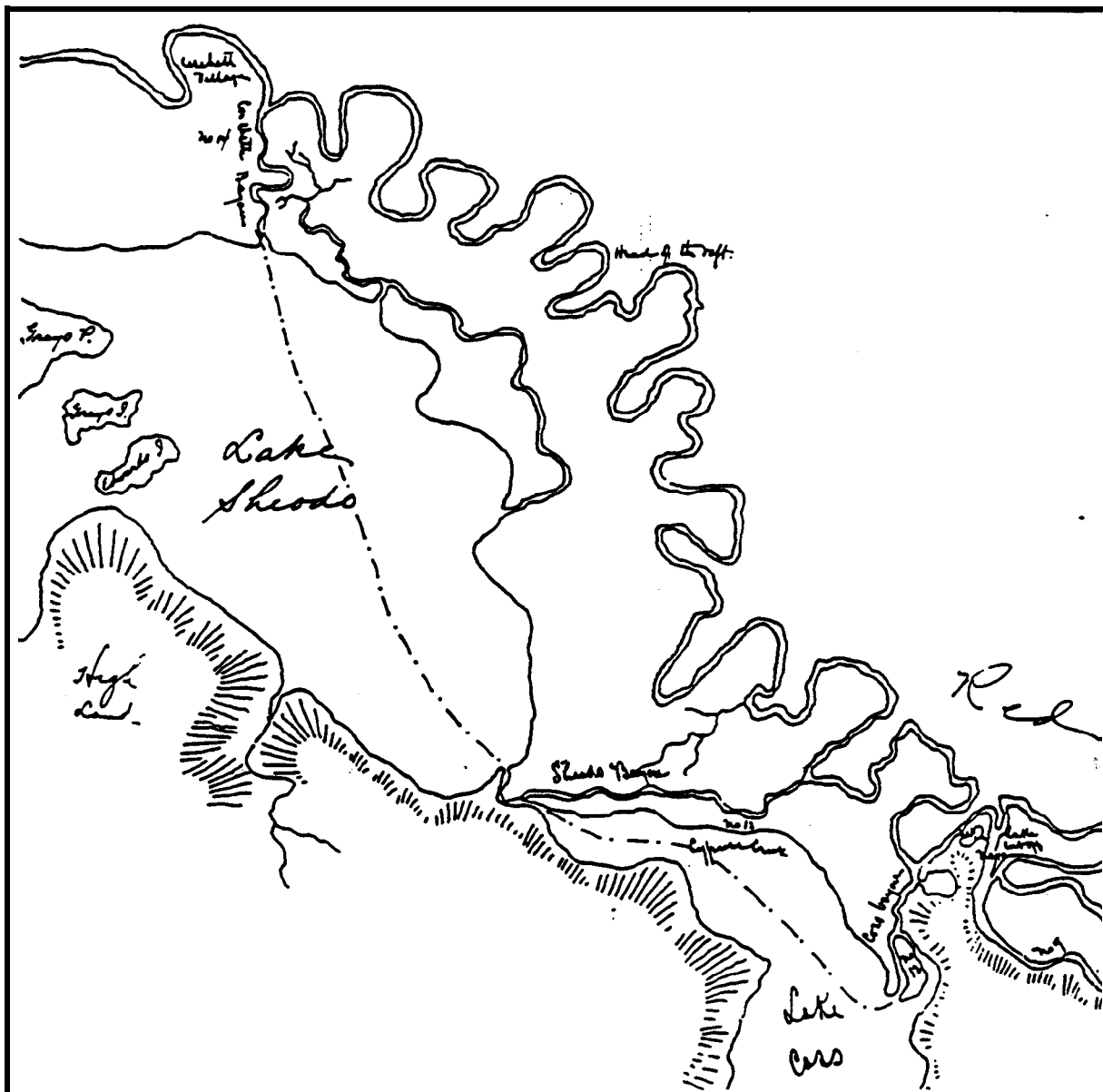


Figure 10. Capt. George Birch's 1826 survey map showing the route he took with a skiff seeking a passage around the Great Raft.

During the late 1700s, the foot of the raft was near present-day Campti, and its head was advancing toward the bluffs on which Shreveport later came to be located. At that time, Bayou Pierre to the west was used to circumvent the raft. Writing in 1805, Sibley (1806b) reports that "Six or seven years ago, boats used to pass this way into the main river again, its communication with which being above the great raft or obstruction: but it is now choked, and requires a portage of three miles." Sibley does not indicate the nature of these craft, what they were carrying, or where they were going, but it is probable that they were large river pirogues carrying trade goods to upriver Indian settlements.

Sibley derived most of his information on the middle portion of Red River (between the head of the raft and the upriver village of the Caddos) from Francois Grappe, who was born in

1747 at the French post adjacent to the Caddos' upriver village. When the post closed in 1763 (when Spain acquired Louisiana), his father, Alexis, took the family to Campiti. Alexis was one of the few Frenchmen licensed by the Spanish *to* trade with the Indians. Francois served as his father's assistant in this trade until Alexis died around 1775, after which Francois continued the trade business, while at the same time acting as an interpreter for the Spanish and the Americans.

The trade carried on by the Grappes with the upriver Indian settlements was undoubtedly in large river pirogues That Francois was intimately acquainted with the middle Red River is indicated by the fact that he provided Sibley an account of river miles upstream. These "miles" were computed by points from shore-to-shore, with boats apparently moving back and forth across the channel to utilize eddies. The points were estimated *to* be *two* miles apart but, given the "ever miles" in Sibley's account, this obviously was an exaggeration. An 1845 Corps report by Lieut. Northrup complains about the continuance of this point system by steamboatmen, indicating that a tradition was maintained in Red River navigation from the pirogues of the 1700s through the keelboats of the early 1800s and the steamboats of at least the middle 1800s, when the capacity to compute true river mires was available but ignored

With the closure of the Bayou Pierre route in 1798 or 1799, navigation, such as it was, shifted to the east through the Loggy Bayou-Lake Bistineau-Willow Chute route, which was utilized by the Freeman and Custis expedition in 1806. This expedition used two experimental craft built under the direction of William Dunbar in New Orleans. These were flat-bottomed boats 28 feet long drawing 16 to 20 inches when loaded, with curved gunners at the bow and stem and cabins for the expedition leaders (Flores 1984). The expedition also used five large river pirogues built froarryingm cypress trees, with a carrying capacity of 30 barrels.

Given the difficulties experienced by Freeman and Custis, generosity is required to describe this passage as a route. Nevertheless, during the first few decades of the 1800s, this was the only way upriver. Carruth (1970) says that Claiborne Wright used this route in 1816 to travel from Natchitoches to Fulton, Arkansas. A journal kept by his son describes the desolateness of the bypass as well as the area of the Ret River above the raft. Paxton (1829) says that the first keelboat ascended the Ret River around the raft in 1816 (with a Major Moss in charge) and came out through Willow Chute (which at that time was called Bee Bayou).

At the time that this keelboat ascended, the raft was just below Willow Chute, which was closed in 1821. Extensions of this route were secured for a few miles upriver, but by 1828 the raft had reached Hurricane Bluffs and through traffic was stopped. No steamboats ever used this route; but the situation had become critical because keelboat navigation enabled Fort Towson, which had been founded in 1824, to be supplied and the Arkansas Territory, which was expanding rapidly, to transport goods downriver.

A memorial from the Territory of Arkansas to the Federal Congress in 1826 initiated the long struggle to deal with the raft, which did not come to a close until 1873 when the raft was permanently removed. Captain Birch made the initial survey and recommended a bypass *to* the west with a reopening of Bayou Pierre. The idea of a bypass was accepted, but not Birch's proposed route through Coushatta Bayou. Instead, Capt. Washington Seawell (not Sewell a. it is usually spelled) made improvements to Red and Black bayous and Clear Lake, cut a cane in 1830 joining the two bayous, and excavated a slough around a raft segment in what is now downtown Shreveport, thereby effecting the linkage with Bayou Pierre.

The route opened by Seawell, which is shown on R.E. Jacobs' 1935 map of "Routes of Steamboats to Surround Rafts in Red River" (Figure 11), was the only route (with upriver

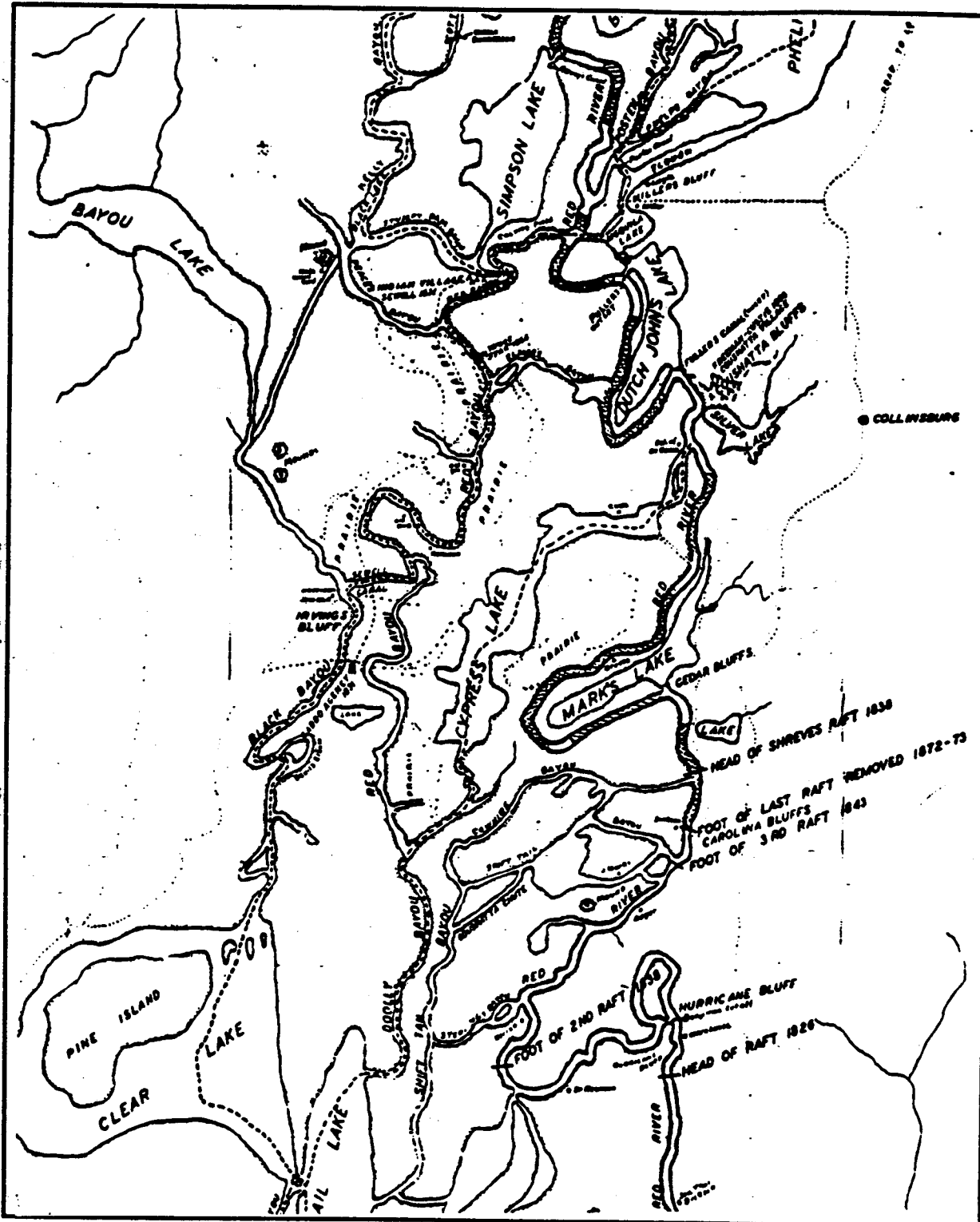


Figure 11. The route around the raft opened by Capt. Washington Seawell, with a developed but never used route (Dooley's Bayou) and an upward extension (Kelly Bayou) of the Seawell route (source: Jacobs 1935).

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extensions as the raft moved upstream) during the raft period, first for keelboats and then for steamboats. However, its deficiencies were recognized even before the work was done, and the Federal effort turned to raft removal, which was accomplished through the boldness and technical capabilities of Captain Henry Miller Shreve of the Corps of Engineers, after whom Shreveport was named (McCall 1984).

Working with snagboats, Shreve began in April 1833, cut through the decayed lower portions of the raft with ease, and reached the Indian agency at Peach Orchard Bluff the first year (Figure 12). Work was suspended the next year, but by April 13, 1835, work had been completed up to Twelvemile Bayou, and Shreve reports keelboat passage through the route opened by Seawell, but only in high water. By the next year, he had passed Willow Chute, and in the year afterwards, he was within 440 yards of the raft's head.

On March 7, 1838, Shreve's lead steamboat broke through the head of the raft, and by the 29th, five commercial steamboats had passed through, in spite of the fact that there was still much debris to be removed. In April, two boats (the *Black Hawk* and the *Revenue*) were lost to snags. But by May, navigation was considered safe, and Shreve reports steamboats of the largest class running through the raft area fully loaded at 7 miles an hour upstream and 12 down without any damage.

Shreve was not important to the history of the area because he removed the Red River raft. That accomplishment was short-lived, lasting only one navigation season. The raft quickly reformed in the place where its head had been, gradually building upstream until it nearly reached the Arkansas line in the early 1870s. What was important was that the raft did not reform further downstream. As a consequence, navigation was opened to Shreveport and to the west, and the route opened by Seawell around the raft was much more accessible.

Regional Watercraft

Navigation on the waterways of Twelvemile Bayou, Caddo Lake and Big Cypress Bayou, in reality, represent an extension of navigation off of Red River. The Red River represents the major waterway flowing south out of northwestern Louisiana and it has served as an important route for commerce and travel since prehistoric times. Aboriginal populations of the region used dugout canoes as their primary craft for travel on the area's streams and lakes. Little is known about these aboriginal craft since only a few examples have been discovered. In 1983 the remains of a fairly large and intact dugout canoe was found eroding out of the bank of Red River above Shreveport. Carved from a single cypress log, the canoe was nearly 31 feet long, about 2 feet wide and a radiocarbon date indicates it was manufactured about A.D. 1000 (Louisiana Division of Archaeology site files 1983). The early French explorers to the region commonly mention the dugouts of the Indians, and, in fact, the dugout, or pirogue, soon became one of the boats most commonly used by Europeans.

Aboriginal use of dugouts persisted well into the American period. In 1807, John Sibley, Indian Agent at Natchitoches, recorded several instances of use of dugouts by Cherokee and Caddo Indians visiting the agency. The French traveler CC Robin, who toured Louisiana in 1805, left a graphic description of Indian pirogues on the Ouachita River

Two fine pirogues decorated with deer heads sporting long branched antlers suddenly darted out of a nearby bayou. They were manned by Indian families. Women seated nonchalantly near the steersman directed him with comely outstretched bare arms, while the men manned the high oars.... Their pirogues were loaded with bear and deer skins, deer tallow and bear oil. They were on their way to the posts at Rapides and Avoyelles to trade.... In exchange for powder, ball, handkerchiefs and wool blankets we got deer and bear skins, oil and fat at quite a good price [Robin 1966:128-129].

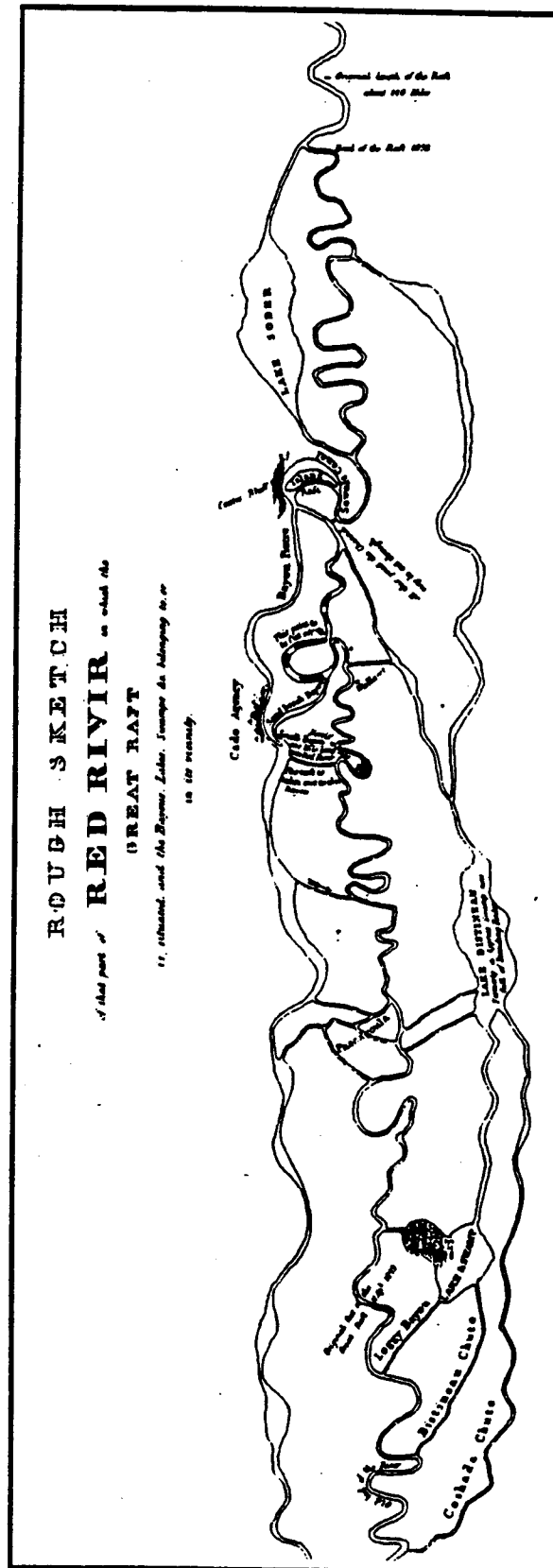


Figure 12. Capt. Henry Shreve's sketch of his area of operations, showing the slough cut by Capt. Seawell in the vicinity of Shreveport and Twelvemile Bayou leading into the Sodo Lake complex.

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Similar boats would have been used on the streams of the project area. by Indians a non-Indians alike. However, considering the size of Big Cypress Bayou, the pirogues us there may have been smaller than the large vessels used on rivers such as the Red and Ouachita.

Some of the pirogues used by the French to transport cargo were quite large affair N.M. Miller Surrey (1916:57-58) noted that some of the larger piroguacs were capable carrying thirty men, and they measured from three to five feet in width and from forty to fifty feet in length. Surrey indicates that the cargo capacity of some of these boats ranged from one to fifty tons, although the latter figure seems much too great. Some of these large pirogues may have been used to carry goods on Red River, primarily below Natchitoches. During the initial American exploration of the Upper Red River by the Freeman Custis expedition, large pirogue were used, particularly to circumnavigate the Great Raft (Flores 1984: Sibley 182; Pirogues continued to be used in the area well into the present century.

Other early vessels probably used on Red River were the bateau plat and the batteaux. Bateau plat means simply "flat boat" and refers to a flat-bottomed vessel which normally had raked bow and stem. Some of these vessels measured 40 feet long and 9 feet wide. The ma typical box-shaped flatboat also was used, but it seems to have become popular slightly let than the bateau plat (Surrey 1916:61). The term bateau means boat in general, and can I applied to many vessels. During the eighteenth century, however, it referred to a specific type of vessel used on inland waters. This vessel was flat bottomed with a tapered bow and stern and it became popular as a carrier of cargo. Bateaux ranged in length from 12 to more than feet, but most were between 20 and 40 feet long (Pearson et al. 1989:90).

The importance of waterborne travel in Louisiana lead *to* a proliferation of types and numbers of watercraft intended for particular conditions or purposes. Robin (1966:100-101) comments on the dives sity of craft used on the inland waterways during the early nineteenth centruy:

People in this country are so accustomed to travel by water that the generic term "volume" [standard French for "carriage"] is always applied to a boat. If a Louisianaian says to you I brought my voiture'; 'Can I give you a Lift in my voiture': he is referring to his pirogue or skiff as a Parisian using the same word would mean his coach.

These voitures in use on the river are extremely variable in shape and size. Many are made from a single tree trunk; others from two or three, firmly pined. Others are real skiffs made of planks of varying timbers in the European manner, some are flat-bottomed, some are rounded and some are provided with a keel like ships. Some can contain only two or three people; others up to thirty or forty ant can carry 100 barrels. Some are elongate ant pointed at each end; others are broad and rectangular like those called chalans. Those made of a single tree trunk are called pirogues. Some of these are forty to fifty feet long by six feet wide ant four to four and a half feet deep. These craft are made from the poplar [cotton wood], a tree which in these regions reaches an enormous size. Ordinarily, however, boats are made from cypress, a lighter and more solid wood, which warps less and will last a long time in the water without rotting. The ribs of the larger boats are of oak and of those species which have a hart wood and are naturally gnarled. A few are constructed entirely of oak, but have come from j regions to the north where the cypress does not grow. In this hot climate oak shrinks ant cracks and will not last long.....This diversity of shape of these boats comes from the diversity in their usage and in the places where they must go. Those that come from the far-off rivers that are wide and shallow are wide and flat in order too draw little water, while those that navigate the surface of the deep rivers and must overcome the swift current, are more elongate and draw more water and are heavier. Their thick, rounded bottoms glide over the snags and logs which are found in all parts of the river bed. The narrow bayous were the water sometimes rushes in torrents require boats that are shorter and lighter, whereas others still